

REMARKS

Claims 1-23 are pending. Claims 1-12, 14-19 and 21-23 are rejected. Claims 13 and 20 are objected to. Claim 24 is added herein. Reconsideration of the application in light of the following remarks is respectfully requested.

I. REJECTION OF CLAIMS 1, 2, 14-19 AND 21-23 UNDER 35 U.S.C. §103(a)

Claims 1, 2, 14-19 and 21-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Vu et al. (US 6,002,925) in view of Auvray (US 5,953,641) and Horton et al. (US 6,424,826). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Independent claim 1 provides that an integrated transceiver circuit comprises a reception path, a voltage controlled oscillator, a first frequency divider and a second frequency divider. The first frequency divider couples the voltage controlled oscillator to a mixer for providing a demodulation frequency for use by the mixer. The second frequency divider couples the voltage controlled oscillator to an analogue to digital converter for providing a sampling frequency for use by the analogue to digital converter.

As admitted in the Office Action, Vu et al. fail to teach a first frequency divider between voltage controlled oscillator (76) and down converter (42), as well as a second frequency divider between voltage controlled oscillator (76) and analog to digital converter (52) (Fig. 1). In addition, it is respectfully submitted that the down converter (42) in Vu et al. is not a mixer as provided in claim 1. For example, the down converter (42) in Vu et al. includes a sample and hold block (43) and a low pass filter (45). As such, the down converter (42), and more particularly the sample and hold block (43), uses the VCO as a sampling clock signal rather than as a local oscillating frequency in a mixer as recited in claim 1.

Additionally, it is respectfully submitted that Auvray and Horton et al. fail to make up for the deficiencies of Vu et al. For example, Auvray, at best, teaches a frequency

divider (DIV) between a synthesizer (SYN) and phase shifters (DPH2, DPH4) (Fig. 1). Auvray does not, however, teach a frequency divider between a voltage controlled oscillator and a mixer, as is also missing from Vu et al.

Similarly, Horton, et al. fail to teach a second frequency divider between a voltage controlled oscillator and an analog to digital converter, as is likewise missing from Vu et al. Instead, Horton et al. disclose a second frequency divider (240) between a mixer (206) and a global positioning system (GPS) processor (214) (Fig. 8).

Additionally, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the teachings of Horton et al. with that of Vu et al. since Horton et al. deal with providing a wireless mobile terminal with a GPS receiver integrated therein (Col. 2, lines 47-49), whereas Vu et al. deal with adapting a receiver section and a portion of a transmitter section of a transceiver for fabrication on a single chip of silicon (Col. 1, lines 10-13). As such, it is respectfully submitted that one of ordinary skill in the art would not be motivated to apply the macroscopic teachings of Horton et al. to the much smaller scale of Vu et al. Additionally, since the GPS receiver shares a reference frequency with a wireless mobile terminal, the GPS receiver in Horton et al. is clearly separate from the wireless mobile terminal. As such, one of ordinary skill in the art would not be motivated to make the suggested combination.

Further, the divider 236 in Horton et al. is only taught in combination with multiplier 210. Therefore, one of ordinary skill in the art would, at best, consider a divider to control a GPS processor in conjunction with a multiplier to control a frequency converter, not a second frequency divider.

Accordingly, it is respectfully submitted that independent claim 1 is allowable over the cited references. Claims 2, 14-19 and 21-23 depend from independent claim 1 and add further limitations thereto and thus are also allowable over the cited references. Withdrawal of this rejection is therefore respectfully requested.

II. REJECTION OF CLAIMS 3-12 UNDER 35 U.S.C. §103(a)

Claims 3-12 and were rejected under 35 U.S.C. § 103(a) as being unpatentable over Vu et al. (US 6,002,925), Auvray (US 5,953,641) and Horton et al. (US 6,424,826) and further in view of Khlal (US 7,039,438). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claims 3-12 depend from claim 1 and add further limitations thereto. Khlal fail to make up for the aforementioned deficiencies of Vu et al., Auvray and Horton et al. Accordingly, it is respectfully submitted that claims 3-12 are allowable over the cited references. Withdrawal of this rejection is therefore respectfully requested.

III. ALLOWABLE SUBJECT MATTER

Claims 13 and 20 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Provisional allowance of claims 13 and 20 is noted with appreciation. However, claims 13 and 20 depend from claim 1, which is believed to be allowable as set forth above. Accordingly, claims 13 and 20 are believed to be allowable in their present form, and are thus not amended at this time.

IV. NEW CLAIMS 24

Claim 24 is added herein, and is believed to be allowable over the cited references, at least, because independent claim 24 includes limitations provided in independent claim 1.


V. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, EHFP139US.

Respectfully submitted,
ESCHWEILER & ASSOCIATES, LLC

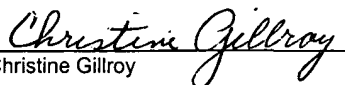
By 
Thomas G. Eschweiler
Reg. No. 36,981

National City Bank Building
629 Euclid Avenue, Suite 1000
Cleveland, Ohio 44114
(216) 502-0600

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper or item referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date September 29, 2006


Christine Gillroy